

**AN ADAPTIVE HYBRID RETRANSMISSION METHOD FOR
WIRELESS COMMUNICATIONS**

Abstract of the Disclosure

- 5 An adaptive incremental redundancy (i.e., Hybrid ARQ) method is described
for retransmitting information in a communication channel of a wireless
communication system. More specifically, code multiplexing is used within fixed
length frames in order to change the number of codes, modulation, and coding on
retransmissions to provide the desired redundancy for successful decoding. The
10 operation of adaptive Hybrid ARQ in the code domain also provides finer granularity
in which to efficiently transmitting redundancy. In one illustrative embodiment, a
method for retransmitting information in a communication channel having a plurality
of fixed length frames each divided into a plurality of time slots of equal duration
includes the step of code multiplexing a retransmission of a previous transmission
15 within one of the fixed length frames using one or more of a plurality of codes. The
number of codes used for the retransmission is variable based on the condition of the
communication channel.

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